

We Claim:

1. A process for transfecting a cell, comprising:
 - a) attaching a labile linkage to a polymeric membrane-active compound;
 - b) adding the polymeric membrane-active compound to a solution containing the nucleic acid;
 - c) introducing the polymeric membrane-active compound and nucleic acid to a cell; and,
 - d) transfecting the cell.
2. The process of claim 1 wherein the labile linkage is selected from the group consisting of pH-labile, very pH-labile and extremely pH-labile.
3. The process of claim 1 wherein the labile linkage is selected from the group consisting of disulfide, acetal, ketal, enol ether, enol ester, amide, imine, imminium, enamine, silyl ether, silazane, and silyl enol ether bonds.
4. The process of claim 2 wherein the labile linkage is selected from the group consisting of diols, diazo, ester, sulfone, and silicon-carbon bonds.
5. The process of claim 4 wherein the polymeric membrane-active compound consists of a peptide.
6. The process of claim 1 where the attachment of a labile linkage renders the polymeric membrane active compound into a membrane inactive compound.
7. The process of claim 1 where the polymeric membrane active compound has a molecular weight greater than 1000.
8. The process of claim 1 where there is more than one labile linkage.
9. The process of claim 1 where there is more than one membrane active compound.
10. The process of claim 9 wherein the polymer is attached to the polymeric membrane-active compound by the labile linkage.
11. The process of claim 1 wherein a polymer inhibits the polymeric membrane-active compound.
12. A process for transfecting a cell, comprising:
 - a) attaching more than one labile linkage to a polymer;
 - b) adding the polymer to a solution containing the nucleic acid;
 - c) introducing the polymer and nucleic acid to a cell; and,
 - d) transfecting the cell.
13. The process of claim 12 wherein the labile linkage is selected from the group consisting of pH-labile, very pH-labile and extremely pH-labile.

14. The process of claim 12 wherein the labile linkage is selected from the group consisting of disulfide, acetal, ketal, enol ether, enol ester, amide, imine, imminium, enamine, silazane, silyl ether, and silyl enol ether bonds.
15. The process of claim 12 wherein the labile linkage is selected from the group consisting of diols, diazo, ester, sulfone, and silicon-carbon bonds.
16. The process of claim 12 further comprising a labile linkage between a membrane active compound and the polymer.
17. The process of claim 16 where there is more than one membrane active compound.
18. The process of claim 16 wherein the polymer consists of a peptide.
19. A complex for delivering a nucleic acid to a cell, comprising:
a) a polymeric membrane-active compound containing a labile bond;
b) a polymer; and,
c) the nucleic acid.
20. A complex for transfecting a cell, comprising:
a) a polymeric membrane-active compound containing a labile bond;
b) a polymer containing a labile bond; and,
c) the nucleic acid.
21. The complex of claim 19 wherein the polymer contains a labile linkage.
22. The complex of claim 20 wherein the polymer is attached to the membrane-active compound by the labile linkage.
23. The complex of claim 19 wherein the polymer inhibits the polymeric membrane-active compound.
24. The process of claim 20 and 21 wherein the labile linkage is selected from the group consisting of pH-labile, very pH-labile and extremely pH-labile.
25. The process of claim 20 and 21 wherein the labile linkage is selected from the group consisting of disulfide, acetal, ketal, enol ether, enol ester, amide, imine, imminium, enamine, silyl ether, silazane, and silyl enol ether bonds.
26. The process of claim 20 and 21 wherein the labile linkage is selected from the group consisting of diols, diazo, ester, sulfone, and silicon-carbon bonds.
27. A process for transfecting a cell, comprising:
a) forming a labile linkage between two compounds to form a complex containing nucleic acid;
b) delivering the complex to the cell;
c) removing the labile linkage; and,
d) transfecting the cell.

28. The process of claim 27 wherein the labile linkage is selected from the group consisting of pH-labile, very pH-labile and extremely pH-labile.
29. The process of claim 27 wherein the compounds are selected from the group consisting of polymers, polymeric membrane-active compounds, and nucleic acids.
30. A process for transfecting a cell, comprising:
a) forming a polymer containing labile linkages
b) adding the polymer to a solution containing a nucleic acid;
c) introducing the polymer and nucleic acid to the cell; and,
d) transfecting the cell.
31. The process of claim 30 wherein the labile linkage is selected from the group consisting of pH-labile, very pH-labile and extremely pH-labile.
32. The process of claim 30 wherein the labile linkage is selected from the group consisting of disulfide, acetal, ketal, enol ether, enol ester, amide, imine, imminium, enamine, silazane, silyl ether, and silyl enol ether bonds.
33. The process of claim 31 wherein the labile linkage is selected from the group consisting of diols, diazo, ester, sulfone, and silicon-carbon bonds.
34. The process of claim 30 further comprising a labile linkage between a membrane active compound and the polymer.
35. The process of claim 34 wherein the polymer consists of a peptide.